

WHAT IS CLAIMED IS:

1. A laser diode module comprising:

a laser diode device;

a first photo detector part for receiving, directly or indirectly, first divided light that is a first portion of light when at least one of light emissions of said laser diode device is divided into two portions of light each traveling a different optical path;

a second photo detector part for receiving second divided light that is a second portion of light thus divided via at least a wavelength selective member; and

means for controlling the lasing wavelength of said laser diode device on the basis of outputs of said first and second photo detector parts;

wherein a beam splitter is provided between said laser diode and said wavelength selective member for dividing light emitted from said laser diode into the first and second divided light; and

wherein at least a quarter-wave plate is provided in an optical path between said beam splitter and said wavelength selective member.

2. A laser diode module, comprising:

a laser diode device;

a first photo detector part for receiving, directly or indirectly, first divided light that is a first portion of light when at least one of light emissions of said laser diode

device is divided into two portions of light each traveling a different optical path;

a second photo detector part for receiving second divided light that is a second portion of light thus divided via at least a wavelength selective member; and

means for controlling the lasing wavelength of said laser diode device on the basis of outputs of said first and second photo detector parts;

wherein a polarizer is provided in an optical path between said laser diode device and said wavelength selective member to generate reflected light having a degree of polarization different from a degree of polarization of incident light falling on said wavelength selective member.

3. A laser diode module, according to claim 2, wherein said polarizer provided in the optical path enables directions of polarization of the incident light falling on said wavelength selective member and of the reflected light to be orthogonal to each other.

4. A laser diode module, comprising:

a laser diode device;

a collimator for collimating incident light of the laser diode;

a first photo detector part for receiving, directly or indirectly, first divided light that is a first portion of light when at least one of light emissions of said laser diode

device is divided into two portions of light each traveling a different optical path;

a second photo detector part for receiving second divided light that is a second portion of light thus divided via at least a wavelength selective member; and

means for controlling the lasing wavelength of said laser diode device on the basis of outputs of said first and second photo detector parts;

wherein a quarter-wave plate is provided in an optical path between said collimator and said wavelength selective member.

5. A laser diode module according to claim 4, further comprising a polarizer provided in the optical path between said collimator and said wavelength selective member.

6. A laser diode module according to claim 4, wherein said quarter-wave plate forms a portion of a member which enables division of the at least one of light emissions of said laser diode device into the two portions of light each traveling a different optical path.

7. A laser diode module according to claim 4, further comprising a polarizing beam splitter provided in the optical path between said collimator and said wavelength selective member.

8. A laser diode module according to claim 4, wherein a polarizer and an optical isolator are provided in the optical path between said collimator and said wavelength selective member.